Claims

1. (**Currently Amended**) In an audio encoder, a computer-implemented method comprising:

receiving audio data in plural channels; ~~**and**~~

partitioning each channel of the plural channels into variable-size windows, wherein window configuration of each channel of the plural channels is independent of other channels of the plural channels;

grouping the windows into plural tiles, wherein for each of the plural tiles the grouped windows in the tile have identical start positions and identical stop positions; and

quantizing the audio data, including **for a tile of the plural tiles** applying ~~**plural**~~ **a** channel-specific quantization ~~**factors**~~ **factor** for **each channel of** the plural channels **for the grouped windows in the tile**.

2. (Original) The method of claim 1 wherein the plural channels consist of two channels.

3. (Original) The method of claim 1 wherein the plural channels consist of more than two channels.

4. (**Currently Amended**) The method of claim 1 wherein the ~~**plural**~~ channel-specific quantization factors are ~~**plural**~~ channel-specific quantization step modifiers.

5. (**Currently Amended**) The method of claim 4 wherein the ~~**encoder applies**~~ **applying** the ~~**plural**~~ modifiers ~~**so as to balance**~~ **balances perceptual** reconstruction quality across the plural channels.

6. (**Canceled**)

7. (**Currently Amended**) The method of claim **[[7]] 1** further comprising, in the encoder, computing the quantization factors based at least in part upon one or more criteria.

8. (**Currently Amended**) The method of claim 7 wherein the criteria include equality in **perceptual** reconstruction quality across the plural channels.

9. (Original) The method of claim 7 wherein the criteria include favoring one or more of the plural channels that are more important than other channels perceptually.

10. (Original) The method of claim 7 wherein the computing is based at least in part upon respective energies in the plural channels.

11. (Original) The method of claim 1 further comprising, in the encoder, computing the quantization factors by open loop estimation.

12. (Original) The method of claim 1 further comprising, in the encoder, computing the quantization factors by closed loop evaluation.

13. (**Canceled**)

14. (**Currently Amended**) In an audio decoder, a computer-implemented method comprising:

receiving encoded audio data in plural channels;

retrieving information for plural channel-specific quantizer step modifiers **for one or more tiles, each of the one or more tiles grouping plural windows that:**

are in different channels of the plural channels, and

have identical start positions and identical stop positions; and

decoding the audio data, including **for a tile of the one or more tiles** applying ~~**the plural**~~ **one of the** channel-specific quantizer step ~~**modifiers**~~ **modifiers** for **each channel of** the plural channels **for the grouped windows in the tile** in inverse quantization.

15. (Original) The method of claim 14 wherein the plural channels consist of two channels.

16. (Original) The method of claim 14 wherein the plural channels consist of more than two channels.

17. (**Canceled**)

18. (Original) The method of claim 14 wherein the retrieving includes getting plural bits indicating precision of the plural channel-specific quantizer step modifiers.

19. (Original) The method of claim 14 wherein the retrieving includes getting a single bit per modifier to indicate whether that modifier has a value of zero.

20. (**Currently Amended**) The method of claim 14 wherein the applying is part of a combined step for quantization, and wherein for each of plural coefficients **of the audio data** the combined step includes a single multiplication by a total quantization amount.

21. (**Canceled**)

22-68. (**Canceled**)

69. (**New**) A computer-readable medium storing computer-executable instructions for causing a computer programmed thereby to perform a method in an audio encoder, the method comprising:

receiving audio data in plural channels;

partitioning each channel of the plural channels into variable-size windows, wherein window configuration of each channel of the plural channels is independent of other channels of the plural channels;

grouping the windows into plural tiles, wherein for each of the plural tiles the grouped windows in the tile have identical start positions and identical stop positions; and

quantizing the audio data, including for a tile of the plural tiles applying a channel-specific quantization factor for each channel of the plural channels for the grouped windows in the tile.

70. (**New**) A computer-readable medium storing computer-executable instructions for causing a computer programmed thereby to perform a method in an audio decoder, the method comprising:

receiving encoded audio data in plural channels;

retrieving information for plural channel-specific quantizer step modifiers for one or more tiles, each of the one or more tiles grouping plural windows that:

are in different channels of the plural channels, and

have identical start positions and identical stop positions; and

decoding the audio data, including for a tile of the one or more tiles applying one of the channel-specific quantizer step modifiers for each channel of the plural channels for the grouped windows in the tile in inverse quantization.

71. (**New**) An audio encoder, comprising:

means for receiving audio data in plural channels;

means for partitioning each channel of the plural channels into variable-size windows, wherein window configuration of each channel of the plural channels is independent of other channels of the plural channels;

means for grouping the windows into plural tiles, wherein for each of the plural tiles the grouped windows in the tile have identical start positions and identical stop positions; and

means for quantizing the audio data, including for a tile of the plural tiles applying a channel-specific quantization factor for each channel of the plural channels for the grouped windows in the tile.

72. (**New**) An audio decoder, comprising:

means for receiving encoded audio data in plural channels;

means for retrieving information for plural channel-specific quantizer step modifiers for one or more tiles, each of the one or more tiles grouping plural windows that:

are in different channels of the plural channels, and

have identical start positions and identical stop positions; and

means for decoding the audio data, including for a tile of the one or more tiles applying one of the channel-specific quantizer step modifiers for each channel of the plural channels for the grouped windows in the tile in inverse quantization.